"Alameda County Pedestrian and Bicycle Counting Project"

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With an increasing number of California communities adopting pedestrian and bicycle plans, conducting walking and bicycling safety audits, and emphasizing the need for cost-effective, low-emission transportation options, there is a greater need for pedestrian and bicycle data. In response to this need, the UC Berkeley Traffic Safety Center has gathered counts at 50 intersection locations throughout Alameda County to quantify pedestrian and bicycle activity and gain a more accurate understanding of pedestrian and bicycle crash risk. This pilot study demonstrates data collection and modeling methods that could be applied statewide. The study has followed a rigorous scientific process, including gathering fine-grained land use and transportation infrastructure data in GIS; selecting representative locations for sample counts; collecting data through manual and automated methods; developing daily, weekly, and seasonal adjustment factors; accounting for differences in daily patterns of pedestrian activity by land use area; and estimating appropriate statistical models.

This research project is being conducted by the UC Berkeley Traffic Safety Center for the California Department of Transportation (Caltrans) and the Alameda County Transportation Improvement Authority.

Robert Schneider, AICP, is a TSC Graduate Student Researcher and Ph.D. student in the Department of City and Regional Planning (DCRP). His duties include leading this project. His Ph.D. research focuses on pedestrian and bicycle transportation mobility, safety, and data collection and analysis methods. In Spring Semester 2008, he taught a two-credit graduate course on Pedestrian and Bicycle Transportation in the DCRP. From 2001-2007, he served as a planner at Toole Design Group where he was the principal investigator for FHWA's Pedestrian and Bicycle Data Collection in United States Communities. Schneider received his Master of Regional Planning from the University of North Carolina at Chapel Hill in 2001.

Lindsay Arnold, MPH, is a TSC Research Associate. She received an AB in biology from the University of Chicago with a minor in visual arts. Before coming to UC Berkeley for her Master of Public Health in Epidemiology/Biostatistics, Arnold worked in the Mathematics & Computer Science Division at Argonne National Laboratory studying whole-cell modeling. Arnold has been with the TSC since 2006. She is currently managing several pedestrian and bicycle studies including volume and exposure modeling, roadway design, and intersection safety.